**K-5 Math Lesson Plan**

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| **Teacher: Sams** | | | **Grade: 5th** | | | **Date(s)**: 1 day |
| **Unit Title:** Unit 1-Understanding the Decimal Place Value System | | | | **Corresponding Unit Task:** Taught Prior to performance task 3. | | |
| **Essential Question(s):** How does a digit’s position affect its value? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  -1 decimal sort per 3-4 students  -timer (online if accessible)  -anchor chart size graph paper.  -dice | | **Student:**  -graph paper (as needed🡪depends on number of dice sorts they get through)  -pencil  -4 dice per pair | | | tenths  hundredths  thousandths  greater than (>) less than (<)  equal to (=) round  compare/comparison  decimal/decimal point | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**   |  | | --- | | 5.NBT.1  *Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.* |  |  | | --- | | 5.NBT.3a  *Read and write decimal numbers to thousandths using base-ten, number name, expanded form.* | | | | | | |
| **I Can Statement(s):**  -I can recognize a digit in one place represents 10 times as much as the place to its right.  -I can recognize A digit in one place represents 1/10 of the place to the left.  -I can read decimals to the thousandths using number names.  -I can write decimals to the thousandths using number names. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  -divide students into groups of 3-4.  -give each group a bag of decimal numbers to sort.  -ask students to sort them from least to greatest and be able to explain their process and reasoning.  -give the students 60-90 seconds DO NOT GIVE THEM ENOUGH TIME TO COMPLETE THE SORT! The goal of this activator is to focus on process and explanation.  -go around to each group and have one (or more) people share what strategies they were using to sort their set of decimals.  -record their strategies on an anchor chart.  -as always ask probing and clarifying questions as the students share. | | | | | |
| **Teacher Directed:**  -Take a set of decimal numbers similar to the students and introduce a strategy to sort decimals using graph paper and the same concepts of place value that have been used throughout the unit.  \*\*\*Note-the graph paper is an organizational strategy that helps students visualize the numbers easier\*\*  -take all of the decimal numbers from the bag and record them on graph paper that is anchor chart size.  -Be very intentional in this think aloud. Model in words and on the graph paper your thinking.  -Write each decimal number consecutively and vertically on the graph paper. Being sure to line up the decimals so that each place value column matches.  -then ask the class to look at the list and discuss with a neighbor which decimal number is the least and HOW THEY KNOW (most important).  -elicit responses and reasoning. Then record the least out to the side of the initial set of decimals (starting a new list).  -repeat this process until you feel students are starting to catch on to the reasoning behind ordering decimals and the use of the graph paper.  -during this discourse process be sure to again bring out the idea that “each place value column, when moving right to left, is 10 times more than the one before it and is 1/10 the one before it when moving left to right.” | | | | | |
| **Guided Practice:**  **-**give every group a sheet of graph paper and designate on person as the writer.  -Have each group take 5-10 minutes to record their set of decimal numbers on the graph paper (transparency if no document camera available) and then sort them using the above mentioned strategy.  -After 5-10 minutes have a couple of groups come up to the document camera/overhead and share their sorted set and reasoning. | | | | | |
| **Independent Practice:**  -break students into homogeneous pairs  -give each pair 2 sheets of graph paper, and 4 dice  -students will then work together to roll their dice, create a decimal number that has ones, tenths, hundredths and thousandths.  -the students will record their number on the graph paper  -students will repeat this process until they have 5 numbers on their graph paper.  -students will then practice putting the decimals in order from least to greatest, just as they practiced in groups earlier.  -students will continue doing this until the timer goes off  \*\*Note-every students should be recording the numbers and sorting them. The students are in partners so that they can ask questions for help or clarity if needed\*\* | | | | | |
| **Closing/Summarizing Strategy:**  -Ask each pair to reflect on all of their sorts and then choose the one they felt was the most difficult. Ask them to circle it and then write at the bottom what made that sort more difficult than the other ones.  -Elicit a few responses after giving everyone 3-4 minutes to complete their responses. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| -After starting activity, move to pairs the need extension and have them create:  🡪only decimal numbers, no whole number (ones)  🡪 only decimal numbers, no whole number (ones) but use an extra dice, | | | -After starting activity, move to pairs the need intervention and have them create:  🡪numbers that have tens, ones, tenths and hundredths. Whole numbers tend to be easier for students to handle  🡪numbers that have hundreds tens, ones, and tenths. Whole numbers tend to be easier for students to handle. | | | -Visual model from teacher directed time, to allow them to refer back to  -After starting activity, move to pairs the need intervention and have them create:  🡪numbers that have tens, ones, tenths and hundredths. Whole numbers tend to be easier for students to handle |
| **Assessment(s):**  Informal-student discourse during each stage of the lesson  Formal-graph paper with sorts on it from independent time | | | | | | |
| **Teacher Reflection:** (Next steps?)  -Could the students sort the numbers based on place value? And could they explain their thinking and process?  -Students misconceptions/understandings  -What do I need to watch for/possibly reteach in the following lessons? | | | | | | |